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**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

INVENTOR: Dan Kikinis
CASE: P1523CIP
SERIAL NO.: 08/811,648 **GROUP ART UNIT:** 2143
FILED: 03/05/1997 **EXAMINER:** Vaughn Jr, William C.
SUBJECT: Apparatus and Methods for Providing Home
Networking for Single and Multimedia Electronic
Devices

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PARTY IN INTEREST:

All inventions in the disclosure in the present case are assigned to or assignable
to:
Lextron, Inc.

**THE COMMISSIONER OF PATENTS AND TRADEMARKS
WASHINGTON, D.C. 20231**

SIR:

APPEAL BRIEF

37 C.F.R 1.192(c)(1) Real Party in Interest

The real party in interest is the party named above in the caption of the
brief; Lextron, Inc.

37 C.F.R 1.192(c)(2) Related Appeals and Interferences

This is an appeal from the action of the Examiner dated December 22, 2003 finally rejecting claims 1-4, 7-9 and 14-17, the only pending claims in the application. There are no related appeals or interferences in the instant case.

37 C.F.R 1.192(c)(3) Status of the Claims

Amended independent claims 1 and 3 in appellant's Amendment A filed on May 5, 1999 in response to the first Non-Final Office Action mailed 01/15/99, rejecting claims 1-4. Further amended claims 1 and 3 in appellant's Preliminary Amendment filed October 29, 1999 in response to the Final Office Action mailed 06/29/99, rejecting claims 1-4. Further amended claims 1 and 3, and presented new claims 5-16 in appellant's Amendment C filed March 01, 2000 in response to the Non-Final Office Action mailed 12/06/99, rejecting claims 1-4. Amended claims 1, 3, 5, 7 and 10 in appellant's Preliminary Amendment filed October 02, 2000 in response to the Final Office Action mailed 06/02/00. Amended claims 1-4 and 7-9, and cancelled claims 5-6 and 10-13 in appellant's Amendment D filed June 20, 2001 in response to the non-final Office Action mailed 12/20/00, rejecting claims 1-4, 7-9 and 14-17. Presented further arguments in appellant's Amendment E filed July 03, 2002 in response to the non-Final Office Action mailed 05/23/02, rejecting claims 1-4, 7-9 and 14-17, which office action was issued by the Examiner in lieu of responding to Appellant's Appeal Brief filed February 28, 2002. Presented still further arguments in appellant's Response F filed January 16, 2003 in response to the non-Final Office Action mailed 10/02/02, rejecting claims 1-4, 7-9 and 14-17. Presented still further arguments,

and an accompanying Declaration under 37 C.F.R. Section 1.132 providing an affidavit by Richard Belgard, an established expert in the art, in appellant's Response G filed May 01, 2003 in response to the non-Final Office Action mailed 03/14/03, rejecting claims 1-4, 7-9 and 14-17. Amended claims 1 and 7 in appellant's Response H filed October 01, 2003 in response to the non-final Office Action mailed 07/17/03 rejecting claims 1-4, 7-9 and 14-17.

Therefore, as of the time of the present Appeal Brief, claims 1-4, 7-9 and 14-17 in their last-amended form are left standing for decision on appeal from the Examiner's Final rejection made on 12/22/03.

37 C.F.R 1.192(c)(4) Status of Amendments

Following is a chronological listing of Office actions and Amendments filed in the instant case:

1. Case filed with claims 1-4 on 03/05/97, case accorded USSN 08/811,648.
2. First Non-Final Office Action mailed 01/15/99 rejecting claims 1-4.
3. Response filed on May 5, 1999 as Amendment A amending independent claims 1 and 3.
4. Final Office Action mailed 07/05/01 rejecting claims 1-4.
5. Response filed on October 29, 1999 as Preliminary Amendment further amending claims 1 and 3.
6. Non-Final Office Action mailed 12/06/99 rejecting claims 1-4.
7. Response filed on March 01, 2000 as Amendment C further amending claims 1 and 3, and presenting new claims 5-12.
8. Final Office Action mailed 06/02/00 rejecting claims 1-12.
9. Response filed on October 02, 2000 as Preliminary Amendment amending claims 1, 3, 5, 7 and 10.
10. Non-Final Office Action mailed 12/20/00 rejecting claims 1-12.
11. Response filed June 20, 2001 as Amendment D amending claims 1-4 and 7-9, and canceling claims 5-6 and 10-13.
12. Non-Final Office Action mailed 05/23/02 rejecting claims 1-4 and 7-9 and 14-17.
13. Response filed on July 03, 2002 as Amendment E presenting arguments.
14. Non-Final Office Action mailed 10/25/02 rejecting claims 1-4 and 7-9 and 14-17.
15. Response filed January 16, 2003 as Response F presenting further arguments.

16. Non-Final Office Action mailed 03/14/03 rejecting claims 1-4 and 7-9 and 14-17.
17. Response filed on May 01, 2003 as Response G providing still further arguments, and an accompanying Declaration under 37 C.F.R. Section 1.132 providing an affidavit by Richard Belgard, an established expert in the art of endeavor.
18. Non-Final Office Action mailed 07/17/03 rejecting claims 1-4 and 7-9 and 14-17.
19. Response filed on October 01, 2003 as Response H amending claims 1 and 7.
20. Notice of Appeal filed on December 31, 2003.

As of the time of this Appeal Brief, claims 1-4, 7-9 and 14-17 as last amended stand for decision on appeal from the Examiner's Final rejection made on 12/22/03.

37 C.F.R 1.192(c)(5) Summary of the Invention

The invention is a networking system for a home or business site comprising a bridge adapter unit at the home or business site having an inlet port for receiving public network protocol signals, a telephone wiring structure in the site, the wiring structure having multiple end points and one or more junctions, and connected at a single point to an outlet port of the bridge adapter unit.

The networking system for the home or business site according to a first embodiment of the present invention is depicted in Fig. 1 of the specification. Examples of data routing for the network system of the preferred embodiment are provided in Fig. 2, and a multimedia network system according to an alternative embodiment of the present invention is depicted in the block diagram of Fig. 3.

The networking system according to the first embodiment of the invention is exemplified in claim 1 which recites a networking system for a home or business site (300, Fig. 3) characterized in that the bridge adapter unit (micro-PBX 301, Fig. 3) drives the telephone wiring structure (302a-d, Fig. 3) according to a Local Area Network (LAN) protocol, transmits all received public network protocol signals, regardless of protocol, to the single LAN protocol, and modulates the signals in a manner to correct signal variations at the end points due to having multiple end points driven from a single point at the bridge adapter unit.

In some embodiment the networking system of the preferred embodiment further comprises one or more converters (305a-b, Fig. 3) connected at individual ones of the end points, each of the converters comprising an outlet port to connect to a single-media or a multi-media device, for converting the LAN signals to a form required by the single-media or multi-media device. In other embodiments the networking system comprises one or more single-media or multi-media electronic devices connected to one or more of the converters, and the electronic

devices may include one or more of telephones (309, Fig. 3) , personal computers (310, Fig. 3), fax machines (307, Fig. 3) and televisions (303, Fig. 3), running through set-top boxes (304, Fig. 3) .

In some other embodiments of the networking system individual ones of the converters are integrated into individual ones of the single-media or multi-media electronic devices, or may also be internal modules of individual ones of the electronic devices.

A method for implementing the networking system of the preferred embodiment as exemplified in claim 7, comprises the steps of delivering public network protocol signals to a level of a home or business site, installing a bridge adapter unit having an inlet port for the public network protocol signals at the site, connecting a telephone wiring structure having multiple end points and one or more junctions, at a single point to an outlet port of the bridge adapter unit, driving the telephone wiring structure according to a single Local Area Network (LAN) protocol by the bridge adapter unit, translating and converting the public network protocol signals, regardless of protocol, into the single LAN protocol, and modulating the signals in a manner to correct variations at the end points due to having multiple end points driven from the single point at the bridge adapter unit.

In some embodiments the method of the preferred embodiment comprises a further step of installing one or more converters connected at individual ones of the end points, each of the one or more converters comprising an outlet port to connect to a single-media or a multi-media device, for converting the LAN signals to a form required by the one or more single-media or multi-media devices. The single-media or multi-media devices may include one or more of telephones, personal computers, fax machines, and televisions running through set-top boxes. In some other embodiments the converters may be integrated into individual ones

of the single-media or multi-media electronic devices, and in other cases the converters may be in the form of internal modules in individual ones of the electronic devices.

37 C.F.R 1.192(c)(6) Issues

Whether the Examiner in the present case makes a proper rejection of claims 1-4, 7-9 and 14-17 as unpatentable over the system of Goodman in view of Foley, and further, whether the Examiner makes a proper rejection of the same claims as anticipated by Foley. Appellant asserts that the references cited and applied by the Examiner, either in combination or singly, fail to teach or suggest the present invention as claimed. Appellant argues that neither prior art reference relied upon by the Examiner teaches or suggests translating all public network protocol signals received at the home or business site, regardless of the protocol of the received signals, to a single LAN protocol, and driving the signals through the conventional telephone wiring structure of the home or business site according to the single LAN protocol, as in the invention and recited in the independent claims.

37 C.F.R 1.192(c)(7) Grouping of Claims

All of the pending claims stand or fall together, and there is no presented grouping of separately patentable claims.

37 C.F.R 1.192(c)(8) Argument

In the Office Action dated December 22, 2003, the Examiner has reasserted the reference of Goodman as teaching the claimed networking system and method for the home or business site comprising substantially the limitations of the claims, with the exception of the specific limitations of the bridge adapter unit receiving public network protocol signals, and that the bridge adapter unit drives the telephone wiring structure according to a LAN protocol, translating all received public network protocol signals, regardless of protocol, to the single LAN protocol, and modulating the signals in a manner to correct signal variations at the end points.

In the above referenced Office Action the Examiner produces, for the first time, the reference of Foley for teaching the specific limitations lacking in Goodman. Although the pending claims of the present invention have not been twice-rejected by the Examiner using the same references, appellant has decided to appeal the rejection due to the inordinate amount of arguments and claim amendments necessitated to overcome the many references and argument provided by the Examiner in a total of ten rounds of prosecution, and especially due to appellant's strong opinion that the Examiner still appears to misunderstand the teachings and specific limitations of the claimed invention, and the very apparent misinterpretation on the Examiner's part of the prior art relied upon for rejecting the pending claims.

The Examiner's arguments

Regarding claim 1, the Examiner has stated in the latest Office Action dated December 22, 2003, that the reference of Goodman substantially discloses

the limitations of appellant's independent claims, with the exception of explicitly disclosing the specifics of the bridge adapter unit receiving public network protocol signals and that the bridge adapter unit drives the telephone wiring structure according to a LAN protocol, translates all received public network protocol signals, regardless of protocol, to the single LAN protocol and modulates the signals in a manner to correct signal variations at the end points due to having multiple end points driven from a single point at the bridge adapter unit.

The Examiner has relied on the newly-presented reference of Foley for disclosing the claimed home area network system and method, stating that Foley discloses a bridge adapter unit receiving public network protocol signals, and that the bridge adapter unit drives the telephone wiring structure of the site according to a LAN protocol, translates all of the received public network protocol signals, regardless of the protocol, to a single LAN protocol. The Examiner has additionally relied on Foley as a primary reference for anticipating all of the limitations of the pending claims, giving a prima facie rejection of all of the claims using Foley as the sole reference.

Appellant now wishes to focus the Board's attention on the specific teachings of the present invention, as embodied in the independent claims, of the bridge adapter unit receiving public network protocol signals, which may be of various protocols, translating all of the received signals to a LAN protocol, and driving the signals over the conventional telephone wiring structure of the home or business site according to the single LAN protocol, as it is these distinct limitations that are not taught, suggested or intimated in any of the prior art that the Examiner has relied upon and applied. Appellant respectfully asserts that the Examiner's rejection of the pending claims as unpatentable over the combination of Goodman and Foley, as well as the Examiner's rejection of the claims using the sole reference of Foley, must show these specific limitations in the art, and the

Examiner thus far has not shown these limitations in the art, and indeed, the art presently cited and applied certainly does not teach, suggest or intimate these specific limitations.

The 103(a) rejection over Goodman in view of Foley

Appellant has argued extensively during a great many rounds of prosecution that the Examiner has improperly interpreted the telephone wiring network of Goodman as a LAN, and incorrectly contends that Goodman discloses driving the wiring with a LAN protocol. Goodman teaches changing the frequency at which video signals are transmitted over the telephone wiring in order to differentiate and single out the signals from telephone signals. Goodman fails to teach converting the incoming signals to a LAN protocol, modulating the signals, or converting the signals from the LAN protocol to a protocol specifically required by the electronic single-media or multi-media devices of the end points of the network.

An affidavit from Richard Belgard, an established expert in the art of endeavor, was provided to support appellant's arguments that Goodman fails to receive public network signals, translating the signals to LAN protocol and modulating the signals at the end points, as has been argued to the Examiner numerous times to no avail. In the Office Action mailed July 17, 2003, the Examiner still retained Goodman as a primary reference, and added the reference of Eames for teaching the deficiencies of Goodman. The reference of Eames taught a residential Gateway, but still failed to teach or suggest driving all of the incoming public network protocol signals, regardless of the protocol, utilizing a single bridge adapter unit, over the internal network comprising but one type of

wiring, such as the pre-existing conventional telephone wiring of the home or business site, as taught in the claimed invention.

In response to the above claim rejection in the Office Action mailed July 17, 2003 using the references of Goodman in view of Eames, the depending claims were slightly and judicially amended to support the arguments presented by appellant. In the latest Office Action dated December 22, 2003, the Examiner deemed appellant's arguments against Eames as persuasive, withdrew the reference of Eames and presented the new reference of Foley for teaching the deficiencies lacking in Goodman.

The reference of Foley, however, still clearly and unarguably fails to teach, suggest or intimate translating, and the bridge adapter unit, all received public network protocol signals, regardless of the protocol, to the single LAN protocol. It is this specific limitation that is regarded by appellant as the key and patentable aspect of the claimed invention.

Appellant now wishes to direct the Board's attention to the specification of Foley, in particular, the Abstract portion, and the paragraph of col. 6 beginning on line 23 which has been cited and applied by the Examiner supporting the Examiner's arguments that Foley teaches the claimed invention. It is specifically taught therein that the client computers in the network are networked without disrupting conventional telephone or telecommunications services which are conventionally provided on POTS (plain old telephony service) telephone wiring, and specifically the paragraph of col. 6, the home area network (HAN 300) and conventional POTS services simultaneously utilize the conventional wiring (POTS wiring 301) of the site by frequency division multiplexing network related signals (HAN signals) and POTS signals to achieve spectral avoidance. Foley teaches that, during connection of the network clients in the internal LAN, there is no disruption of conventional telephone or telecommunications service in the

LAN network. The conventional POTS and digital subscriber line (DSL) signals share the internal wiring of the network, and the baseband frequency of the signals is changed to avoid conflicts within the network. Appellant argues, therefore, it only follows that there must be more than a single protocol used for driving the signals on the internal network during connection of the network clients on the LAN network, which teaches away from the claimed invention.

Appellant wishes to emphasize that it is the claims themselves, which must be the only focus of the Examiner when evaluating the merits of the claims against the prior art, and in this case the Examiner clearly has not demonstrated such focus. Foley teaches an alternative invention for solving a problem which is different from that solved by appellant's claimed invention. Frequency conversion, as taught by Foley, is distinctly different from protocol translation, as taught and claimed in appellant's invention, and a teaching of Foley therefore clearly cannot be used to obvious appellant's specific claims of protocol translation.

Appellant is not claiming frequency conversion, nor is appellant claiming simply translating incoming signals from one protocol to another; rather, appellant's invention teaches, and the claims specifically recite, translating all incoming signals to the single protocol on the internal network. All incoming signals, regardless of the protocol used by the data sources, are translated to the single LAN protocol, and are driven on the internal LAN network using the same single protocol, which appellant's invention specifies as TCP/IP protocol.

The 102(e) rejection over Foley

The Examiner has stated that, regarding independent claims 1 and 7, Foley discloses a networking system for a home or business site comprising the claimed

bridge adapter unit having an inlet port for receiving the public protocol signals and a telephone wiring structure connected at a single point to an outlet port of the bridge adapter unit, characterized in that the bridge adapter unit translates all received public network protocol signals, regardless of protocol, to the single LAN protocol, and by this rationale appellant's independent claims are rejected. The Examiner has further stated that, regarding depending claims 2-4, 8, 9 and 14-17, the limitations of these claims are taught within the figures and specification of Foley, but the Examiner cites and applies no specific portion of the specification of Foley in support of the statement.

However, as stated above by appellant pertaining to the Examiner's combination of the references of Goodman and Foley as obviating the claimed invention, Foley simply teaches baseband frequency conversion, and in fact, teaches away from translating the protocol of all incoming signals, regardless of the protocol, to a single protocol, and driving the signals over the LAN using a single protocol. Appellant has carefully studied all of the portions of Foley cited and applied by the Examiner in the rejections, as well as the remainder of the specification, and can nowhere find any specific teaching, suggestion or intimation of such protocol conversion as claimed.

Appellant asserts that the rather common practice of Examiners rejecting claims because the prior art teaches alternative inventions that might accomplish the same or similar purposes is not provide prima facie rejections, and should be discouraged. To create a prima facie rejection, the actual elements of the claimed invention must be shown in the art, and that is clearly not case in this instance. Further, applicant must respectfully point out that obviousness cannot be established by combining the teaching of the combined art to produce the claimed invention, absent sufficient teaching or suggestion supporting the combination,

and appellant strongly argues that in this case, the prior art of record clearly fails to produce such teaching incentive or ability as in the claimed invention.

Appellant therefore strongly argues that, in this case, a proper rejection under 35 U.S.C. 103(a) cannot be made combining the art of Goodman and Foley, nor can a proper rejection under 35 U.S.C. 102(e) be made relying solely on the reference of Foley. Appellant believes that independent claims 1 and 7 have been clearly shown to be patentable over both references of Goodman and Foley either combined or singly, and appellant is very confident that a clear distinctions of the claimed invention over the prior are present by the Examiner, as argued above, will be easily recognized by the Board. Depending claims 2-4, 8-9 and 14-17 are therefore patentable on their own merits, or at least as depended from a patentable claim.

In conclusion, it is respectfully submitted that the prior art provided by the USPTO in this case, either singly or in combination, essentially fails to teach or suggest all of the limitations and capabilities as recited in appellant's claim language. Accordingly, appellant respectfully requests that the Board reverse the final rejection of claims 1-4, 7-9 and 14-17 and hold them allowable.

37 C.F.R 1.192(c)(9) Appendix

The following are the claims involved in the Appeal:

1. A networking system for a home or business site, comprising:

a bridge adapter unit at the home or business site, having an inlet port for receiving public network protocol signals; and

a telephone wiring structure in the site, the wiring structure having multiple end points and one or more junctions, and connected at a single point to an outlet port of the bridge adapter unit;

characterized in that the bridge adapter unit drives the telephone wiring structure according to a Local Area Network (LAN) protocol, translates all received public network protocol signals, regardless of protocol, to the single LAN protocol, and modulates the signals in a manner to correct signal variations at the end points due to having multiple end points driven from a single point at the bridge adapter unit.

2. The networking system of claim 1 further comprising one or more converters connected at individual ones of the end points, the one or more converters comprising each an outlet port to connect to a single-media or a multi-media device, the converters converting the LAN signals to a form required by the single-media or multi-media device.

3. The networking system of claim 2 further comprising one or more single-media or multi-media devices connected to one or more of the converters.

4. The networking system of claim 3 wherein the single-media and multi-media

electronic devices include one or more of telephones, personal computers, fax machines, and televisions running through set top boxes.

7. A method for implementing a networking system, comprising the steps of:

- (a) delivering public network protocol signals to a level of a home or business site;
- (b) installing a bridge adapter unit having an inlet port for the public network protocol signals at the site;
- (c) connecting a telephone wiring structure having multiple end points and one or more junctions, at a single point to an outlet port of the bridge adapter unit;
- (d) driving the telephone wiring structure according to a single Local Area Network (LAN) protocol by the bridge adapter unit, translating and converting the public network protocol signals, regardless of protocol, into the single LAN protocol; and
- (e) modulating the signals in a manner to correct variations at the end points due to having multiple end points driven from the single point at the bridge adapter unit.

8. The method of claim 7 comprising a further step installing one or more converters connected at individual ones of the end points, the one or more converters comprising each an outlet port to connect to a single-media or a multi-media device, the converters converting the LAN signals to a form required by the single-media or multi-media device.

9. The method of claim 8 wherein, in the further step, the single-media or multi-media devices include one or more of telephones, personal computers, fax machines, and televisions running through set-top boxes.

14. The networking system of claim 3 wherein individual ones of the converters are integrated into individual ones of the single-media or multi-media devices.

15. The networking system of claim 3 wherein individual ones of the converters are internal modules of individual ones of the single-media or multi-media devices.

16. The method of claim 8 wherein individual ones of the converters are integrated into individual ones of the single-media or multi-media devices.

17. The method of claim 8 wherein individual ones of the converters are internal modules in individual ones of the single-media or multi-media devices.

If any additional time extensions are required beyond any extension petitioned with this Appeal Brief, such extensions are hereby requested. If there are any fees due beyond any fees paid with this Appeal Brief, authorization is given to deduct such fees from deposit account 50-0534.

Respectfully Submitted,

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